



## **GUILFORD COUNTY**

DEPARTMENT OF PUBLIC HEALTH ENVIRONMENTAL HEALTH DIVISION

July 28, 1997

Sun Company Inc. 4041 Market St. Aston, PA 19014

SUBJECT:

MONITOR WELL CONSTRUCTION

PERMIT #: 252-97-MW10-RW0

**GUILFORD COUNTY** 

SITE NAME:Summit Ave. Sunoco

Dear Madam or Sir:

In accordance with your application received July 28, 1997, we are forwarding herewith Monitor Well Construction Permit #252-97-MW10-RW0 for the construction of 10 well(s).

Henceforth, correspondence and data relating to these wells shall be designated as specified in the subject heading.

This Permit will be effective from the date of its issuance and must be renewed annually. Any additional wells installed at the site in excess of the number permitted above requires that a new application be submitted so that the permit may be amended to reflect the correct number of wells on the site. This Permit shall be subject to the conditions and limitations specified therein.

Sincerely,

Kelly C. Gage

Environmental Manager

cc:

Incident File Permit File

# GUILFORD COUNTY BOARD OF HEALTH DIVISION OF ENVIRONMENTAL HEALTH PERMIT FOR THE CONSTRUCTION OF

#### A MONITOR WELL OR WELL SYSTEM

In accordance with the provisions of the Guilford County Board of Health Rules and Regulations Governing the Construction, Repair, and Abandonment of Wells,

#### PERMISSION IS HEREBY GRANTED TO

Sun Company, Inc.

for

#### Summit Ave. Sunoco

FOR THE CONSTRUCTION OF 10 well(s) located at 1103 Summit Ave., Greensboro, North Carolina in Guilford County in accordance with the application dated April 21, 1997 and in conformity with the specifications and supporting data, all of which are filed with the Guilford County Health Department, Division of Environmental Health and are considered a part of this Permit.

This Permit is for well construction only, and does not waive any provisions or requirements or any other applicable laws or regulations.

Construction of a well under this Permit shall be in compliance with the Guilford County Board of Health Rules and Regulations Governing the Construction, Repair, and Abandonment of Wells, and any other laws and regulations pertaining to well construction.

This Permit will be effective from the date of its issuance until the site assessment and/or remediation has been completed, and shall be subject to other specified conditions, limitations or exceptions as follows:

- 1. Written permission must be obtained from the property owner prior to construction of the well.
- 2. A permanent identification plate with the date of construction, depth of well, screen interval, depth of grout, drilling contractor, and his registration number shall be attached to the well head or the outer protective steel casing.

- 3. The well construction completion form and all water quality data are to be submitted to the Guilford County Division of Environmental Health, 301 N. Eugene Street, Greensboro, North Carolina, 27401 to the attention of Kelly Gage.
- 4. All laboratory analyses of groundwater samples collected from the permitted monitor well(s) are to be submitted to the Guilford County Division of Environmental Health, 301 N. Eugene Street, Greensboro, North Carolina, 27401 to the attention of Kelly Gage.
- 5. All additional investigative findings in relation to the pollution sources being monitored, as indicated under Item #9 of the permit application, are to be submitted to the Guilford County Division of Environmental Health, 301 N. Eugene Street, Greensboro, North Carolina, 27401 to the attention of Kelly Gage within sixty (60) days of well completion, and quarterly thereafter.
- 6. The well shall be afforded a means of protection against vandalism, damage, or unauthorized use.
- 7. When any monitor well is no longer useful for its intended purpose, it shall be abandoned in compliance with the Guilford County Board of Health Rules and Regulations Governing the Construction, Repair, and Abandonment of Wells and a well abandonment form sent to the Guilford County Division of Environmental Health, 301 N. Eugene Street, Greensboro, North Carolina, 27401 to the attention of Kelly Gage.
- 8. The monitor well shall be constructed in accordance with the Guilford County Board of Health's recommended construction details.
- If additional monitor wells, not included on the original application, need to be constructed, a new application must be submitted, so that the Permit may be amended.

Permit issued July 28, 1997

FOR THE GUILFORD COUNTY BOARD OF HEALTH

Kelly Gage Environmental Manager Division of Environmental Health

By Authority of the Guilford County Board of Health Permit #252-97-MW10-RW0

#### GUILFORD COUNTY

# DEPARTMENT OF PUBLIC HEALTH DIVISION OF ENVIRONMENTAL HEALTH

# APPLICATION FOR PERMIT TO CONSTRUCT A MONITORING/RECOVERY WELL SYSTEM

Date: 4/21/97	
In accordance with the provisions of the Guilford County Board of Health Rules and and Abandonment of Monitoring and Recovery Wells, application is he monitoring/recovery wells.	Regulations Governing the Construction reby made for a permit to construct
1. Site Name: Former Summit Avenue Sunoco	Incident #:10141
2. Address of Well: 1103 Summit Avenue, Greensboro, No.	c
3. Name of Well Owner Sun Company, Inc.	Telephone:610-859-5705
4. Owner's Mailing Address: 4041 Market Street, Aston,	PA 19014
5. Property Owner (if different from well owner):	
6. Property Owners' Mailing Address:	
7. Reason for Monitoring Well(s): Environmental Assessmen	
8. Type of facility for which the well is needed: Underground S  (e.g. nondischarge facility, waste disposal site	torage Tank
9. Contaminant type (if applicable): Organics (e.g. nutrients, organics, heavy metals,	etc.)
10. Are there existing recovery wells associated with the monitoring If yes, how many? Number of new/additional recovery	well(s)?NOwell(s) to be installed
11. Distance to a known waste or pollution source: Various	feet
12. Are any water supply wells located <500 feet from the propos  If yes, give distance:feet	ed well? <u>No</u>
13 Well Driller: Various	Fee: \$ 200 -
14. Registration #: Various	Date Paid: 5 5 -97
15. Driller's Address: Various	Receipt#:15-37 2
Telephone:	

### PROPOSED MONITORING/RECOVERY WELL CONSTRUCTION INFORMATION

1.	Total number of wells to be constructed: 10 Number to be completed in bedrock: None
	Number to be completed in unconsolidated material: 10
2.	Estimated depth of well(s): 30 feet
3.	Gravel or sand pack interval (if appropriate): From 15 feet to 30 feet
4.	Type of casing used: PVC (i.e. PVC, stainless steel, galvanized steel, etc.)
_	
٥.	Diameter of casing: 4 & 2 inches Thickness of casing: inches
6.	How will the well(s) be secured? Locking Well Cap
7.	Beginning construction date: Existing Wells
8.	Completion date: Not applicable
ΑI	DDITIONAL INFORMATION
1.	ATTACH A SITE MAP SHOWING THE LOCATIONS OF THE FOLLOWING:
	(a) PROPOSED MONITORING/RECOVERY WELL(S)
	(b) ALL EXISTING MONITORING/RECOVERY WELLS AND TEST BORINGS WITHIN THE PROPERTY BOUNDARY
	(c) ALL WATER SUPPLY WELLS WITHIN 500 FEET OF THE WELL
	(d) AT LEAST TWO REFERENCE POINTS (e.g. numbered roads, intersections, streams, etc.)
DE	PROVIDE A WELL CONSTRUCTION DIAGRAM OF EACH WELL SHOWING DIAMETER, ESTIMATED PTH, SCREEN INTERVALS, SAND/GRAVEL PACKS, TYPE OF CASING MATERIAL, CASING WALL ICKNESS, WELL HEAD COMPLETION DETAILS, ETC.
Gor Sig	Applicant hereby agrees the proposed well(s) will be constructed in accordance with approved specifications and ditions of the Well Construction Permit as regulated under the Guilford County Board of Health Rules and Regulations verning the Construction and Abandonment of Monitoring and Recovery Wells and accepts full responsibility for applicance with these rules.    Project Geologist Title   Project Geologist   Project G
con	ne property is owned by someone other than the applicant, the property owner hereby consents to allow the applicant to struct monitoring wells as outlined in this application and that it shall be the responsibility of the applicant to ensure that see monitoring/recovery wells conform to the Guilford County Board of Health well construction standards.
	Attach agreements.

Signature of Property Owner (if different from applicant)

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## WELL CONSTRUCTION RECORD

	Header Ent GW-1 Ent
DRILLING CONTRACTOR Law Engineering	
DRILLER REGISTRATION NUMBER 332	STATE WELL CONSTRUCTION 40-1070-WH-0495
1. WELL LOCATION: (Show sketch of the location below)	
Negrett Towns Greensborn, NC	County: Stillford
Goad, Community, or Subdivision and Lot No.)	Depth DRILLING LOG
2. OWNER Sunoco/Mid-State Oil Company	From To Formation Description
ADDRESS 1835 Market St. 1) Penn Ctr. 9th Floor Philadelphia (Street or Route No.) Philadelphia PA 19103	See Soil Test Roring Log NW-1
City or Town State Zp: Code	
3. DATE DAKLED 12/3/92 USE OF WELL Monitoring	
4. TOTAL DEPTH 22 ft CUTTINGS COLLECTED YES No	
5. DOES WELL REPLACE EXISTING WELL? THE Yes TO NO	
6. STATIC WATER LEVEL: FT. [] above TOP OF CASING,	
TOP OF CASING IS FT. ABOYE LAND SURFACE	
7. YIELD (gpm): N.A. HETHOO OF TEST N.A.	
8. WATER ZONES (depth):	
9. CHLORINATION: Type N.A. Amount N.A.	
10. CASING:	H additional space is needed use back of form.
Depth Diameter of Weight/Ft Halerial	
From 0 To 5 Ft. 4-in Sch 40 PVC	LOCATION SKETCH
From 0 5 4-in Sch 40 PVC	
From To Ft From To Ft	LOCATION SKETCH, (Show direction and distance from at least two State Roads.
From 0 To 5 4-in Sch 40 PVC From To Ft	LOCATION SKETCH, (Show direction and distance from at least two State Roads.
From 0 To 5 4-in Sch 40 PVC  From To Ft  From To Ft  11. GROUT:  Depth Material Method	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From 0 To 5 Ft 4-in Sch 40 PVC  From To Ft.  From To Ft.  11. GROUT:  Depth Material Method  From 0 To 3 Ft. Neat Cement Tremie	LOCATION SKETCH, (Show direction and distance from at least two State Roads.
From 0 5 4-in Sch 40 PVC  From To Ft	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From 0 To 5 4-in Sch 40 PVC  From To Ft  From To Ft  Depth	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From 0 To 5 4-in Sch 40 PVC	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From	LOCATION SKETCH. (Show direction and distance from at least two State Roads, or other map reference points)
From	(Show direction and distance from at least two State Roads, or other map reference points)  See Monitoring Well Location Map
From	See Monitoring Well Location Map  ACCORDANCE WITH IS NEAC 2C, WELL CONSTRUCTION SEED TO THE WELL OWNER  2/23/93

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## GROUND-VATER MONITORING VELL INSTALLATION RECORD

JOB NAME Summit Ave Sunoco	JOB NUMBER
VELL NUMBERW-1	GROUND SURFACE ELEVATION
LOCATIONGreens	boro, North Carolina
INSTALLATION DATE	ecember 3, 1992
CROUND SLRFACE  LOCKABLE PVC CAP  CROUT  18 - INCH BORING  4- INCH PVC PIPE	DEPTH TO BASE OF GROUT SEAL.  3.0 ft  DEPTH TO TOP OF SAND BACKFILL.  4.0 ft
BENTONITE SEAL  (1.0 FT THICK AINIMA)  SAND  PVC SCREEN  (SLOT SIZE 8.018 INCH)  CAP  NOTE: ALL PVC PIPE JOINTS	TOTAL GEORE VE.  22.0  DEPTH OF PVC SCREEN  5.0 to 20.0 ft

# CONTROL STEEL - WHON'S THE WORLD THE STEEL STEEL

WELL	CONSTRUCTION	RECORD

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Header Ent	GW-1 E-L

DRILLING CONTRACTOR Law Engineering  DRILLER REGISTRATION NUMBER 332	BTATE WELL CONSTRUCTION 40-1070-101-0495
1. WELL LOCATION: (Show sketch of the location below)  Nagrest Towns Greensbore, NC	County: Chilford
Goad, Community, or Subdivicion and Lot No.)	Depth ORILING LOG
2. OWNER Sunoco/Mid-State Oil Company	From To Formedon Description
ADORESS 1835 Market St. 11 Penn Ctr. 9th Floor (Street or Route No.)	See Soil Test Boring Log MW-2
Philadelphia PA 19103  Chy or Town Sule Zip Code	
2. DATE ORLLED 12/3/92 USE OF WELL MODITORING 4. TOTAL DEPTH 25 Ft CUTTINGS COLLECTED THE DIM	
5. DOES WELL REPLACE EXISTING WELL? 🔲 Yee 🔲 No	
6. STATIC WATER LEVEL: FT. D above TOP OF CASING,	
TOP OF CASONS IS FT. ABOYE LAND SURFACE	
7. YIELD (gpm): N.A. METHOO OF TEST N.A.	
8. WATER ZONES (depth):	
9. CHEORINATION: Type N.A. Amount N.A.	
10. CASING:	If additional space is needed use back of form.
Depth Diameter or Weight/Ft, Material	LOCATION SKETCH
From 0 To 5 Ft 4-in Sch 40 PVC	(Show direction and distance from at least two State Roads.
FromToFt	or other map reference points)
FromToFh	
11. GROUT: Depth Material Method	
From 0 To 3 Ft Neat Cement Tremie	See Monitoring Well Location Map
From ToFt	
12. SCREEN:	
Depth Diameter Stot Size Material	
From 5 To 20 Ft 4 h 0.010 h PVC	
From To Ft n h h	
From To Ft h h	
13. GRAVEL PACK:	
Depth Size Material	
From 4 To 20 Ft. Sand	
FromToFt	•
14. REMARKS:	
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN	IN ACCORDANCE WITH 15 NOAC 2C, WELL CONSTRUCTION 2/23/93
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## GROUND-VATER ADNITORING VELL INSTALLATION RECORD

VELL NUMBER GROUND SURFACE ELEVATION Creensboro, North Carolina  INSTALLATION DATE December 3, 1992  CROUND SURFACE COVER ASSEABLY WITH READVEABLE STEEL COVER  LOCKABLE PVC CAP  CROUND SURFACE COVER ASSEABLY WITH READVEABLE STEEL COVER  CROUND SURFACE COVER ASSEABLY WITH READVEABLE STEEL COVER ASSEABLY WITH ASSEABLY WITH READVEABLE STEEL COVER ASSEABLY WITH ASSEABLY	JOB NAME Summit Ave Sunoco	JOB NUMBER
COCATION  Greensboro, North Carolina  INSTALLATION DATE  December 3, 1992  COVER ASSEABLY VITH  PREADVEABLE STEEL COVER  LOCKABLE PVC CAP  CROUT  CRO	VELL NUMBER	GROUND SURFACE IT EVATION
December 3, 1992  COVER ASSEABLY VITH  READVEABLE STEEL COVER  COCKABLE PVC CAP  COCKABLE STEEL COVER  COCKABLE PVC CAP  COCKABLE PVC CAP  COCKABLE PVC CAP  COCKABLE STEEL COVER  COCKABLE PVC CAP  COCKABLE STEEL COVER  COCKABLE	LOCATION Greenst	boro, North Carolina
CROUND SURFACE  READVEABLE STEEL COVER  CROUT  CROU	INSTALLATION DATE	acember 3, 1992
PVC SCREEN	GROUND SLRFACE  LOCKABLE PVC CAP  CROUT  18 - INCH BORING  4- INCH PVC PIPE  BENTONITE SEAL  (1.8 FT THICK AINIAUA)  SAND  PVC SCREEN  (SLOT SIZE 8.818 INCH)  CAP	COVER ASSEABLY VITH  RELAUVEABLE STEEL COVER  CEPTH TO BASSE OF CROUT SEAL  3.0 ft  SAND BACKFILL  4.0 ft  10TAL D  OF V  25.0

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#### WELL CONSTRUCTION RECORD

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	Long Po
Minor Basin	
Bash Code	
Header Ent	GW-1 Ent

DRILLING CONTRACTOR Law Engineering  DRILLER REGISTRATION NUMBER 332	STATE WELL CONSTRUCTION 40-1070-121-0495
1. WELL LOCATION: (Show skelch of the location below)  Nearest Town: Greensbare, NC	County: Chilford
Goad, Community, or Subdivision and Lot No.)	Depth ORILLING LOG
2. OWNER Sunoco/Mid-State Oil Company	From To Formedon Description
	S 0-/1 B B-/-
ADORESS 1835 Market St. 11 Penn Ctr. 9th Floor (Steel or Rouse No.)	See Soil Test Roring LogMW-3
Philadelphia PA 19103  City or Town State Zip Code	
City or Town State Zp Code  3. DATE DRILLED 12/3/92 USE OF WELL Monitoring	
4. TOTAL DEPTH 20 ft CUTTINGS COLLECTED X YES NO	•
S. DOES WELL REPLACE EXISTING WELL? THE THE	
•••	
6. STATIC WATER LEVEL: FT.   20010 TOP OF CASING,   TOP OF CASING IS FT. ABOVE LAND SURFACE.	
7. YIELD (gpm): N.A. METHOD OF TEST N.A.	
8. WATER ZONES (depth):	
9. CHLORINATION: Type N.A. Amount N.A.	
10. CASING:  Wall Thickness  Depth Dlameter or Weight/Ft. Material	if additional space is needed use back of form.
0 - 5 / /- Cab /0 DVC	LOCATION EXETCH
	(Show direction and distance from at least two State Roads, or other map reference points)
From ToFt	or other map re-croises position
11. GROUT: Dooth Material Method	
From 0 To 3 Ft. Neat Cement Tremie	See Monitoring Well Location Map
From ToFL	5.00 mg
	·
12. SCREEN:	
Depth Diameter Slot Size Material  5 20 Ft 4 h 0.010 h PVC	
From To Ft h h	
From To Ft h h	
13. GRAYEL PACK:	
Depth Size Material	
110111	
From To Ft.	,
14. REMARKS:	
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED II STANDARDS, AND THAT A COPY OF THIS RECORD HAS SEEN PRO	N ACCORDANCE WITH IS NOAC 2C, WELL CONSTRUCTION
2705	2/23/93
SIGNATI SE OF CO	NTRACTOR OR AGENT DATE

# GROUND-VATER MONITORING VELL INSTALLATION RECORD

JOS NAMESummit Ave Sunoco	JOB NUMBER
VELL NUMBERMV-3	GROUND SURFACE FLEVATION
LOCATION Green	sboro, North Carolina
INSTALLATION DATE	December 3, 1992
CROUND SURFACE  LOCKMELE PVC CAP  CROUT  18 - INCH BORING  4- INCH PVC PIPE	COVER ASSEABLY VITH  READVEABLE STEEL COVER  DEPTH TO BASE OF CROUT SEAL  3.0 ft  DEPTH TO TOP OF SAND BACKFILL
BENTONITE SEAL  (1.0 FT THICK AINIAUA)  SAND  PVC SCREEN  (SLOT SIZE 8.018 INCH)  CAP  NOTE: ALL PVC PIPE JOINTS	4.0 ft  TOTAL DEF OF VEL  20.0 ft  PVC SOREEN  5.0 to 20.0 ft
HAVE SCREV CONFECTORS	

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WELL CONSTRUCTIO	N RECORI	D
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WELL CONSTRUCTION RECORD		Header Fr	6 GW-1 Ent
Law Engineering			VH-1 GIL
DRILLER REGISTRATION NUMBER 332	BTATE PERMI	WELL CO	18TRUCTION 40-1070-W1-0495
1. WELL LOCATION: (Show sketch of the location below)			
Negrett Towne Greensbore, NC	County: _	Cailfor	·d
(Road, Community, or Subdivision and Lot No.)	Dep#	<u>n</u>	DRILLING LOG
2. OWNER Sunoco/Mid-State Oil Company	from	To	Formeton Description
ADORESS 1835 Market St. 11 Penn Ctr. 9th Floor			ee Soil Test Boring Log
(Street or Route No.)			M-4
Philadelphia PA 19103  City or Town State Zip Code			
3. DATE DRILLED 12/3/92 USE OF WELL Monitoring			
4. TOTAL DEPTH 21 ft CUTTINGS COLLECTED YES 10			
5. DOES WELL REPLACE EXISTING WELL? Yes Q No			
6. STATIC WATER LEVEL: FT. D above TOP OF CASING,			
TOP OF CASING IS FT, ABOVE LAND SURFACE			
7. YIELD (gpm): N.A. METHOD OF TEST N.A.	<del></del>		
8. WATER ZONES (depth):	<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·
		<del></del>	<del></del>
9. CHLORINATION: Type N.A. Amount N.A.		<del></del>	
10. CASING: Wall Thickness	H 4	regitionel so	ace is needed use back of form.
Dopth Dlameter of Weight/Ft Material	<u> </u>		OCATION SKETCH
From 0 To 5 Ft 4-in Sch 40 PVC		ection and d	istance from at least two State Roads.
FromToFt	OI OUNT	meth reserve	d bornsy
From ToF1,			
11. GROUT: Depth Material Method			
From 0 To 3 Ft. Neat Cement Tremie	Se	e Monito	oring Well Location Map
From To Ft			
12. SCREEN:			
Depth Diameter Slot Size Material			
From 5 To 20 Ft. 4 h 0.010 h PVC			
From To Ft N			
FromTofthh			
13. GRAVEL PACK:			
Depth Size Material			
From 4 To 20 Ft. Sand			
FromToFt			·
14. AEMARKS:			
		/	
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED	IN ACCORD	ANCE WITH,	18 HEAC. 2C, WELL CONSTRUCTION
	IN ACCORDA	ANCE WITH	is head 20, well construction ter 2/23/93

FOR OFFICE USE ONLY

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Serial Na.

## GROUND-VATER MONITORING VELL INSTALLATION RECORD

JOB NAMESummit Ave Sunoco	JOB NUMBER
VELL NUMBER	GROUND SURFACE ELEVATION
LOCATION Greens	sboro, North Carolina
INSTALLATION DATE	December 3, 1992
ENSTALLATION DATE  CROUND SURFACE  LOCKABLE PVC CAP  CROUT  18 -INCH BORING  4- INCH PVC PIPE  (1.8 FT THICK AINIMAN)  SAND  PVC SCREEN  (SLOT SIZE 8,818 INCH)  CAP  NOTE: ALL PVC PIPE JOINTS	COVER ASSEABLY VITH  READVEABLE STEEL COVER  CEPTH TO  BASE OF  GROUT SEAL  3.0 ft  LEPTH TO  TOP OF  SAND BACKFILL  A.0 ft  DEPTH OF  PVC SOREIN  5.0 to 20.0 ft
HAVE SCREV CONFECTORS	

HORTH CAROLINA DEPARTMENT OF HATURAL PERCURCES AND COMMUNITY DEVELOPMENT DIVISION OF ENVIRONMENTAL IMPACIONAL ORDER ORDER SECTION
P.O. BOX 27647 - PALEXHALC, 27611, PHONE (818) 733-6063

WELL	CONST	RUCTION	RECORD

VMW-5

FOR	OFFICE USE ONLY
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Lat	Long.
Beein Code	
Header Ent	QW-1-Ent,

DRILLING CONTRACTOR <u>FISHBURNE DRILLING</u> INC.  DRILLER REGISTRATION NUMBER 951	STATE WELL CONSTRUCTION PERMIT NUMBER:
1. WELL LOCATION: (Show sketch of the location below)  Nearest Town:	
(Road, Community, or Subdivision and Lot No.)	Prom. To Formation Description
2. OWNER _ SYN / MID-STATE OIL CO.	From To Formation Description
ADDRESS 4041 MARKET ST.  (Street or Route No.)  ASTON. PA 19014  City or Town State Zio Code	
1. DATE DRILLED 5/27+28/93 USE OF WELL Monitoring	(SEE AMACHED
4. TOTAL DEPTH 35" CUTTINGS COLLECTED YES 10 No	DRILL LOGS)
S. DOES WELL REPLACE EXISTING WELL? Yes MINO	
6. STATIC WATER LEVEL: FT. D shove TOP OF CASING. FT. ABOVE LAND SURFACE.	
7. YIELD (gpm): METHOD OF TEST	
8. WATER ZONES (depth):	
9. CHLORINATION: Type Amount	\
10. CASING:	If additional space is needed use back of form.
Wat Thickness Depth Diameter or Weight/Ft Material	ر المراجعة ا المراجعة المراجعة ال
From 0 To 30 FL 2" SCH 40 PVC	LOCATION SKETCH (Show direction and distance from at least two State Road
From 0 10 28 FI 6 SCH 40 PVC	or other map reference points)
From To F1	
11. GROUT:	<u> </u>
Depth Material Method	
From 0 To 26 Fl. Portland Coment	in-DOMALO'S RESTUARANT
From _ 26 To 28 Fl. Benton 70-	
12. SCREEN:	STORE BURGONG
Depth Diameter Slot Size Material	+ w
From 30 To 35 Ft. 2 h 0.000 h PVC	
From To Ft h, h,	
From To Ft h h	
13. GRAVEL PACK:	Sunsant average
. Depth Bize Material	avent
From 28 To 35 FI. # 2 Washed Sand	<u> </u>
From To FL	•
14. REMARKS:	

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

		<del></del>		
		CLIENT: SUN CO	MPANY.	INC.
		PROJECT NAM		
GRO	DUNDWATER	PROJECT NUM		
	HNOLOGY INC.	LOCATION: SUB	AMIT AVE	
· · · · · · · · · · · · · · · · · · ·	TINOLOGI INC.	GRE	ENSBORG	), NC
DATE 01/10/93 WEL	L NUMBER VMW-5	DRILLER: FISHI	BURNE D	RILLING, INC.
CASED FROM O TO 30	<del></del>	DRILL RIG CME 7	5	
SCREENED FROM 30' TO			HOLLOW	STEM AUGER
WELL DEPTH 35' WEL	L DIAMETER 2"			27, 1993
ELEVATION 598.21'	UDD 4 CV 751 001 051/70/175	LOGGED BY T. V		
ANNULUS COMPLETION SAI				
OTHER 6" OUTER CASING SET		G CAP & CONC. EMB	IEDDED W	H COV.
DETAIL DEPTH COLUMN	l imitataatast bi	ESCRIPTION	SAMPLE	COMMENTS
	ASPHALT/CRUSHER RUN: To	<b>6</b> *;		
	SILT/SILTY CLAY: Bm, little F	to M-grnd.	0-2	BC=8-6-7-6 PID=136
	slight hydrocarbon (HC) odor			
5 10 10 11 11 11 11 11 11 11 11 11 11 11	SILT: Orange—gry, mottled, so	ome clay & F	2-4	BC=6-8-15-16 PID=56.2
	M—grained sand, dry—damp, s	<del></del>	l	
	Silt: As above, damp-dry	1	4-6	BC=3-5-5-6 PID=70.1
	SILT: Orange—It. gry, some F			
	sand, clayey, moist (Lab Sam		6-8	BC=6-6-8-9 PID=322
			<u> </u>	
	SILT: As above, clayey & san	· <u> </u>	8-10'	BC=3-3-4-6 PID=117
	SILT: Orange, some clay, tr. 1		10-12	BC=6-6-8-7 PID=50.4
	sand, saturated, thin layer of	gravel,		
15 7 11	soft			
	SILT: Orange—red—tan, mottle	d, some—	14-16	BC=2-2-1-2 PID=34.3
	little clay, tr. F-grnd. sand, s	saturated,		
	black organic staining (vein),	soft		
20 3 1111	SILT: As above, black organic	stainina.	19-21	BC=1-1-3-2 PID=22.7
	saturated, soft	<u> </u>		
		<u> </u>		
25 =	SILT: Or, little CL, tr. F-grnd.	<del></del>	24-26	BC=3-2-2-3 PID=14.3
	litte blk org. staining, sl. folia	ited.	·	
	thin layer of SAPROLITE @ 25	'. saturated,		
	soft	;		
30	SILT: As above to 29' then S	APROLITE:	28-30'	BC=27-40-21-50/5 PID-13.2
	Wht-it. gry, SILT - very F-gr	nd. sand, v.		
	F mica, appears to be weathe			
	(not foliated)			
<u>■</u> :			<del></del>	

HORTH CLROCHA DEPARTMENT OF NATURAL PERCURCES AND COMMUNITY DEVELOPMENT DIVISION OF ENVIRONMENTAL MANAGEMENT - GROWNWATER RECTION
P.O. BOX 27647 - RALEICHLAG, 27611, PHONE (418) 713-6043

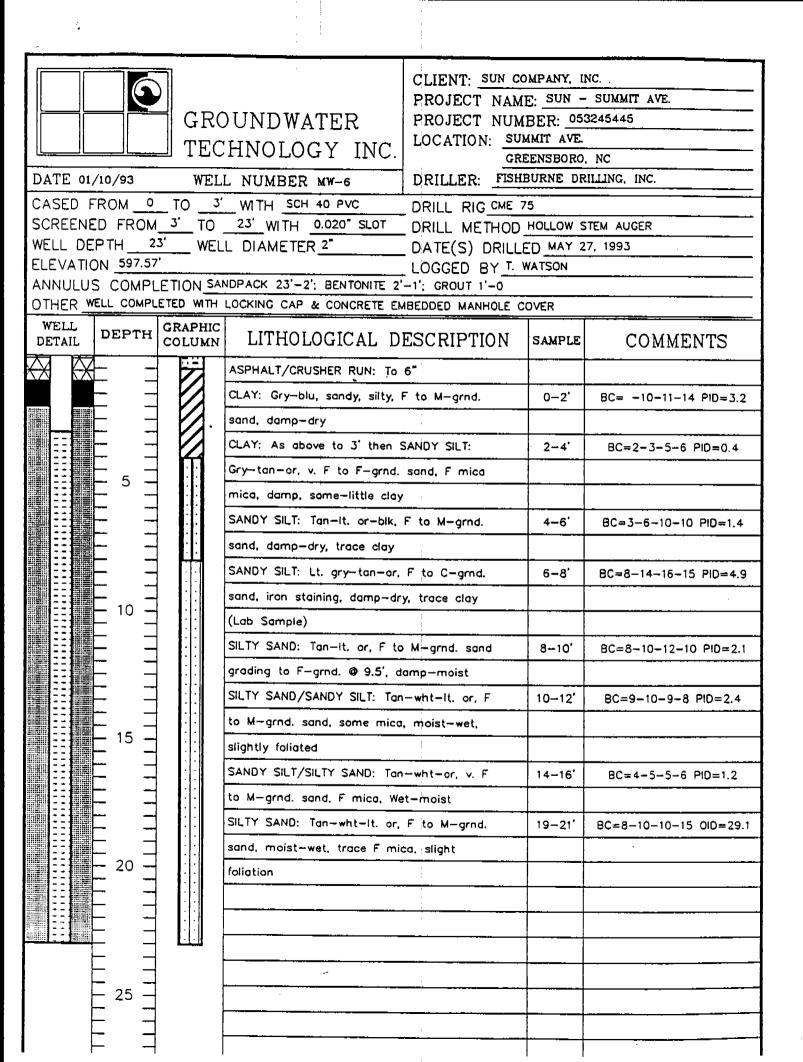
WELL	CONS	TRUC	HOIT	RECORD	)
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FOR	R OFFICE USE ONLY
Quad. Ho.	Serial No.
Lat.	Long Pc
Minor Besin	FC
Basin Code	
Headen-Ent	QW-1-Ent

	Head	QW-1-Ent,
DRILLING CONTRACTOR FISHBURNE DRILLING THE DRILLING THE		L CONSTRUCTION ABER:
L WELL LOCATION: (Show sketch of the location below)		
Negresi Town: GREENSBORD, NC	County: Gu	1/LFDRD
1103 SummIT AVE.	Depth	DRILLING LOG
(Road, Community, or Subdivision and Lot No.)	From To	Formation Description
2. OWNERSYM/MID-STATE OIL CO.		-
ADDRESS		<u> </u>
<u>ASTON, PA</u> 19014		
City or Town State Zip Code	<del> </del>	- <del>- ,</del>
3. DATE DRILLED 5/27/93 USE OF WELL Monitoring		SEE ATTACHED
4. TOTAL DEPTH 23 CUTTINGS COLLECTED THE		DRILL LOGS)
S. DOES WELL REPLACE EXISTING WELL? Yes X Ho		
6. STATIC WATER LEVEL: FT. O above TOP OF CASING. TOP OF CASING IS FT. ABOVE LAND SURFACE.		
	·	<del>-</del>
7. YIELD (gpm): METHOD OF TEST	<u></u>	
8. WATER ZONES (depth):	<del></del>	
V Have		
9. CHLORINATION: Type Amount		
10. CASING:		
Wall Thickness Depth Diameter or Weight/Ft, Material	H addition	onal space is needed use back of form.
From _ 0 _ To _ 3 _ FL _ 4" _ SCH 40 PVC	(Ohai dii a	LOCATION SKETCH
FromTo	or other map	n and distance from at least two State Roads, reference points)
FromToFt	•	
11. GROUT:		
Depth Material Method		, ]
From _ O _ To _ ! FI. Partland Coment	Medical RESTA	Mari
From 1' to_ 2' Fl. Benton 7 =		
12. SCREEN:		STORE BURLDING
	<u> </u>	
Depth Diameter Slot Size Material From 3' To 23' Ft. 4" in 0.020 in PVC		Tamer Town
	- 47-7	
From To Ft in in in	:/	ver->-
From To FL h h h	-	***************************************
13. GRAVEL PACK:  Depth Size Mandati		SAROUT ANTOLOG
From 2' To 23 Fl. # 2 Washed Sand		
From	<u>-</u>	
14. REMARKS:	-	

mw-6

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.



HORTH CLROCHA DEPARTMENT OF HATURAL RESOURCES AND COMMUNITY DEVELOPMENT DEVELOPMENT - OROLDWATER SECTION P.O. BOX 27647 - RALEICHULC. 27611, PHONE (418) 713-6013

WELL	CONS	TRUCT	NOI	RECORD
------	------	-------	-----	--------

MW-7

F	OR OFFICE USE ONLY
Qued. No.	Sedel No.
Minor Basin	LongPc
Basin Code Header-Ent	
	UW-1-Ent

DRILLING CONTRACTOR FISHBURNE DRILLING, ING	STATE WELL COPPERMIT NUMBER:	. =
. WELL LOCATION: (Show sketch of the location below)  Negrest Town:	County: Guilte	-SD
(Road, Community, or Subdivision and Lot No.)	Depth	DRILLING LOG
OWNER _ SYN / MID - STATE OIL CO.	From To	Formation Description
ADDRESS 4041 MARKET ST.  (Street or Route No.)  ASTON. PA 19014  City or Town State Zio Code		
DATE DRILLED 12/9/43 USE OF WELL Monitoring		(SEE ATTACHED
C. TOTAL DEPTH 25 CUTTINGS COLLECTED THE DIN	_	DRILL LOGS)
S. DOES WELL REPLACE EXISTING WELL? YES AND		
6. STATIC WATER LEVEL: FT. D shove TOP OF CASING.		
TOP OF CASING IS FT. ABOVE LAND SURFACE.	·	
7. YIELD (gpm): METHOD OF TEST		
8. WATER ZONES (depth):	<del></del> -	
9. CHLORINATION: Type Amount		
10. CASING:	il additional an	ace is needed use back of form.
Wall Thickness Depth Diameter or Weight/FL Material		LOCATION SKETCH
From _ O _ To _ S FL _ Z" _ SCH 40 PVC	(Show direction and	distance from at least two State Road
From To	or other map referen	ce points)
From To Ft		
11, GROUT:		
Depth Material Method		/ <del></del> /
From 0 To Z FI Portland Coment	WOODMALP'S RESTUMBANT	<del> </del>
From 2 To 3 Ft. Bentonite		
12. SCREEN:		/
Depth Diameter Slot Size Material		+ was
From 5 To 25 Ft. 2" h 0.020 h PVC	+ ev-7	
From To Ft h h		
From ToFL h h		
13. GRAVEL PACK:		Stamps average
Depth Sign Majorial		
From 3 To 25 Fl. # 2 Washed Sand		
From To Ft.	•	

*						·	
GROUNDWATER TECHNOLOGY INC.  DATE 01/10/93 WELL NUMBER MW-7					CLIENT: SUN COMPANY, INC.  PROJECT NAME: SUN - SUMMIT AVE.  PROJECT NUMBER: 053245445  LOCATION: SUMMIT AVE.  GREENSBORO, NC  DRILLER: FISHBURNE DRILLING, INC.		
CASED FROM 0 TO 5' WITH SCH 40 PVC DRILL RIG CME 75  SCREENED FROM 5' TO 25' WITH 0.020" SLOT DRILL METHOD HOLLOW STEM AUGER  WELL DEPTH 25' WELL DIAMETER 2" DATE(S) DRILLED DECEMBER 9, 1993  ELEVATION 595.14' LOGGED BY T. WATSON  ANNULUS COMPLETION SANDPACK 25'-3': BENTONITE 3'-2': GROUT 2'-0  OTHER WELL COMPLETED WITH LOCKING CAP & CONCRETE EMBEDDED MANHOLE COVER							
WELL DETAIL	DEP	TH	GRAPHI COLUM	N LITHOLOGICAL D	<del></del>	SAMPLE	COMMENTS
				ASPHALT/CRUSHER RUN: To SANDY CLAY: Grey, F-grnd. silt, plastic, damp	<del></del>	0-3,	(HAND) PID=1.0
	_ _ _ _ 5	1111		SILTY CLAY: Orange—tan—gre	y, little F-	3-5'	BC=3-4-5-8 PID=0.8
			1 1	SILT: Tan-It. gry, little-trace sand, little clay, damp-moist	<u> </u>	5-7	BC=3-5-11-11 PID=0.7
			11	SILT: Tan-It. gry/grn, tr. F- little clay, damp-moist, (Lab	<del></del>	7-9'	BC=4-5-7-9 PID=22.5
	10			SILT: As above, moist-wet		9-11'	BC=7-5-7-11 PID=3.9
			1 1	Sult. Top of the Child			
				SILT: Tan-or-grn/gry, little- sand, little clay, sl. foliation,		13–15'	BC=5-6-8-9 PID=2.8
	15						
	<del>-</del>						
				SANDY SILT: Tan-orange-gre		10.00	
	20 			slight foliation, damp	en, trace clay,	18-20'	BC=9-11-16-20 PID=4.6
	<u> </u>			SAPROLITE (SANDY SILT): Tan	-orange-green-	23-25'	BC=9-11-14-19 PID=2.8
	<u> </u>			white, F to M-grnd. sand, sli foliated, damp	ghtly		
	25 25		Ш				
		_			<u> </u>	1	

THE CHOCKE DEPARTMENT OF NATURAL RESOURCES AND ODMERSTY DEVELOPMENT	xr [	·	FOR OFFICE USE ONLY
OWISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION P.O. BOX 27647 - RALEIGHULC, 27611, PHONE (818) 723-6043		Quad. No	Serial No.
P.O. BOX 17647 - PULL DEPOCE 274141		LEL	Lora Pc
		Monor Basin -	
WELL CONSTRUCTION RECORD Vmv	- S	Basin Code -	
		Haster	GW-1-Ent
RILLING CONTRACTOR FISHBURNS DELLING THE	et i të	WELL CONS	RTRUCTION
ILLER REGISTRATION NUMBER 941	PERMI	T HUMBER:	N/A
TILLER REGISTRATION NOMBELT			
YELL LOCATION: (Show sketch of the location below)			
Hazrast Town: Greensboro, NC	County:	Guilford	<u>/</u>
ATTION TO THE STATE OF THE STAT	Dep	th	· DRILLING LOG
"Road, Community, or Subdivision and Lot HoJ	From	то	Formation Description
OWNER SUN/MID-STATE OIL CO.	<del> </del>	<del></del>	
ADDRESS VOUI Market St. (Street or Route Hol)			<del></del>
		<del></del>	
City or Town State Zip Code	<u> </u>	<u> </u>	
DATE DRILLED 8/17-18/94 USE OF WELL Monitoring	•	·	(Please See Attached
OATE DRILLED ATTO THE OF HELL ATTO MY			D-11 Long)
TOTAL DEPTH CUTTINGS COLLECTED MY HE DIO			
5. DOES WELL REPLACE EXISTING WELL? X Yes Ho			
STATIC WATER LEVEL: FT above TOP OF CASING,			
TOP OF CASING IS FT. ABOVE LAND SURFACE.	<u> </u>		
. YIELD (gpm): METHOD OF TEST			
"o. WATER ZONES (depth):	<del>-</del>	<del></del> -	
31), CHLORINATION: Type Amount	<del>-</del>	<del></del> -	
•			and and the best of form
10. CASING: Wat Thickness		it additional ap	ace is needed use back of form.
Depth Diameter or Weight/FL Materia			LOCATION SKETCH
From 0 _ TO _ 50' FL 2" _ SCH 40 PVC	— (Show	direction and	distance from at least two State Roads,
From _ O TO US FI 6" SOULUD PIC	_ or oth	ier map referen	ica botute)
From To FL	<u> </u>		root
11. GROUT:			/

Method Depth

1 12. SCREEN: Slot Size Diemeter

From	To F	L kr	n
13. GRAVEL PAG	CK:		
	Depth	\$leo	Melariai.
From_	55' TO 47.5'	1. # 2 Washe	Sord
From_	To(	Ft	
14. REMARKS:	<u> </u>		

ALD'S WANT STORE BUILDING SUMMEL TACKITE

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

*					1		
CASED F SCREENE WELL DE ELEVATION	ROM D FF PTH DN _	<i>0</i> 0M ≤	TEC  WELL  TO 50  TO WEL  WEL  ETION 50	UNDWATER HNOLOGY INC. NUMBER VMW-8 'WITH SCH 40 FVC SS' WITH CO20 SIGH L DIAMETER 2"	PROJECT NUMI LOCATION:  DRILLER:  DRILL RIG  DRILL METHOD  DATE(S) DRILLE LOGGED BY	E: SUN. BER: OF 1103 S. CROWNES FISHERAMA COME 75 HSP /: D 8/1	- SUMM - AVE.  - 2745-045  - DRIVING THE.  - HD  - ROWER 3,-  7-18/04
WELL DETAIL			GRAPHIC COLUMN		ESCRIPTION	SAMPLE	COMMENTS
	5		2000	CLAY: Gray. Dan Sanoy CLAY: Brown	~	5-7	2.4
			, כנשאבץ	SANDY/CLANGE EILT: B M.J. Go. Dame -		9-11	2.3
	15	=	1 Yamps	SPNEU/CLAUSY SICT: A	+ <u>Mosė</u>	14-16	3.3
		) <u>=</u>		SANDY S. LT: Brown, Fin		19-21	6.6
	2:	5 = = =	9 %	SANDIE SIND SON	1	24-26	(9.)
	<u> </u>	o =	'#'S X	CANON SILF/ SILTY SANT		29-31	13.1
	<del> </del>	5 =	SAROUR SANDY SILT / SILL	SANDY SILT/SILTY SAND	: 1A. Wet	34-36	26.6
	 	0 =					
	1111	5 =					
	5	0 =		SATEGITTE (SANDY SILT)		49-51	
	5	55 =		•			
		0 =					
	6	5 <del>-</del>	<del>-</del>				